

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Comparison of the etiology of stillbirth over five decades in a single centre: a retrospective study
AUTHORS	Wou, Karen; Ouellet, Marie-Pier; Chen, Moy-Fong; Brown, Richard

VERSION 1 - REVIEW

REVIEWER	Rosnah sutan Community health department, universiti kebangsaan malaysia medical centre, university kebangsaan malaysia, malaysia
REVIEW RETURNED	19-Mar-2014

GENERAL COMMENTS	<p>Abstract: need to add the type of classification used to determine causes of stillbirth.</p> <p>page 4 line 6: definition need to clarify. Is it before or 500g and above? Missing word ...h ?...</p> <p>page 5: methodology is not clear. this is a repeat study. The author can refer to the earlier study and describe how the data were collected. Did they used specific perinatal auditing form and any verification of data conducted regularly. It is mentioned statistical analysis was conducted but none is presented in the result. Is it missing? or not done. Is it only descriptive analysis?</p> <p>research ethical approval was mentioned but not on participant consent.</p> <p>page 14 Figure 1: missing legend(column bar reference)</p> <p>References:many studies were conducted on stillbirth trend in developed and developing countries but with limited and accuracy data available was not mentioned. Citing only from 25 references may be not enough.Please add more by comparing regions and medical and health facilities available, difference in classification used.</p> <p>this paper only show descriptive analysis on the stillbirth trend over decades. No statistical analysis were conducted, which may show limited for application as a new knowledge.</p> <p>I suggest the authors to do statistical trend analysis as they have access to the database</p>
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REVIEWER	Marian MacDorman National Center for Health Statistics, USA
REVIEW RETURNED	09-Apr-2014

GENERAL COMMENTS	This is an interesting paper on a topic of interest to readers. Specific comments follow:
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	<p>1. Abstract, conclusions: The rate of stillbirth. . . “decreased to 19.9 cases per 10,000 births”. However, in the results (p. 12 bottom) and discussion, it says that the stillbirth rate decreased to 32 per 10,000. I don’t see the 19.9 per 10,000 figure anywhere else in the paper besides the abstract. Please clarify. Please also list the specific data years for the comparisons that you make.</p> <p>2. Table 1 and elsewhere: I believe that the category “unexplained antepartum asphyxia” is really a misnomer, and the category refers to “cause unknown.” In the first place antepartum asphyxia doesn’t sound correct to me, as the definition of asphyxia that I get from my dictionary involves “interference with respiration or insufficient oxygen in the air” and a fetus has not breathed or been exposed to air yet. The term “hypoxia” in my dictionary includes inadequate oxygenation of the blood, without reference to respiration, and may be the more correct term for a stillbirth. However, from the definition of the category given in Table 1, I still feel that “cause unknown” is the most correct term for this category and that it should be changed accordingly.</p> <p>3. Table 2: For previous cesarean there is “0,12” in the right-hand column. Is this a range? If so, it is improperly labelled and the column header says “average+-SD”. (Mean may be the more commonly used term rather than average.) Also, for some of the figures in this column you show the SD and for some you don’t – why?</p> <p>4. Aside from the multivariate modeling, the paper moves back and forth between the use of 3 primary measures: numbers of stillbirths, percentages (of total stillbirths or stillbirths with complete autopsy results) and stillbirth rates per 10,000 births. I am not entirely clear on why percentages are used in some cases and rates in others. Rates are generally the preferred measure, but percentages are permissible when rates cannot be computed. Please reconsider and further explain (preferably in the methods) your choice of which measure you use in which circumstances.</p> <p>5. Much of the text is very numbers dense, with both numbers and percentages listed for each data point. Although the text is quite well written, the numbers density makes it a bit hard to follow. Part of this is because Tables 3-6 contain only numbers of events, and no percentages or rates – so the percentages need to go into the text. I suggest reformatting tables 3-6 to either contain both numbers and percents (or rates), or list the n at the top of each column and just show the percents (or rates) in the table. That way, the text could talk only about the percents which would make it less numbers-dense and easier to follow.</p> <p>6. Page 11, line 37: You use the term “rate” to refer to a percentage. Please correct.</p> <p>7. Page 13 line 4: “73% reduction” I get 72%. Also, I believe that this reduction is NOT from “1960 to 2009” but rather is from “1960-69 to 2000-2009.” Please clarify.</p> <p>8. Figure 1 contains no labels or legend to distinguish between either the data years or the cause of death categories; therefore it is meaningless to the reader.</p> <p>9. Page 15 line 22: Please change “underdeveloped” to “developing”</p>
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	<p>as in the following sentence.</p> <p>10. Page 16, line 18: Please change “51% of cases” to “51% of stillbirths” (as otherwise there is confusion with the 30,000 deliveries that you mention earlier in the sentence).</p> <p>11. Page 16, lines 40-46: Please briefly mention the location and data years for the Sebire study as these results may not be generalizable to other populations.</p> <p>12. Page 16, lines 51-54: Please mention the time period of the study here.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name Rosnah sutan

Institution and Country Community health department, universiti kebangsaan malaysia medical centre, university kebangsaan malaysia, malaysia

Please state any competing interests or state 'None declared': None declared

Thank you for your constructive criticism of our manuscript.

Comments were taken into consideration, and changes were made.

- We have clarified the definition of stillbirth as well as our methodology.
- We have also clarified that this study is indeed a descriptive analysis on the stillbirth trend over five decades as opposed to statistical analysis. Raw data from previous study was not available for analysis.
- We also added to our manuscript that patient consent was obtained at the time of autopsy consent for diagnostic and research purposes.
- Figure 1 had been modified as suggested.
- We agree that there are numerous studies in the literature about stillbirth trends. However due to limited word count, our discussion of these papers was limited to the main relevant articles. It is beyond the scope of this paper to evaluate the differences in stillbirth and its causes on a global scale as in many developing countries, a large component is the lack of medical care, poverty, social and nutritional deprivation etc. In this paper, we are aiming to examine changes in the natural history of stillbirth in the context of good obstetrical care in an academic center and to see what impact the improvements in obstetrical care over the last few decades have had on stillbirth.

Reviewer: 2

Reviewer Name Marian MacDorman

Institution and Country National Center for Health Statistics, USA

Please state any competing interests or state 'None declared': None declared

First we would like to thank you for such detailed comments on our paper.

We have tried our best to modify the manuscript accordingly.

1. We corrected the conclusion in the abstract and cited that “in 50 years, the rate of stillbirth has decreased from 115 to 32 cases per 10,000 births from the 1960s to 2000s, which represents a

reduction of 72%”.

2. The definition of asphyxia for fetuses is generally used and largely based on the findings of petechial hemorrhages in serosal surfaces and congestion of organs. Inadequate blood supply is implied with acute hypoxia as the common pathway.

However, in table 1, we have changed the category “unexplained antepartum asphyxia” to “cause unknown” as suggested. This may be clearer to the reader.

3. For table 2, we have changed “average” to “mean” and included standard deviation for continuous variables and not categorical or ordinal variables.

4. We have reviewed our paper to use mostly stillbirth rates per 10,000 births for comparison between decades.

5. We agree that the paper is very numbers dense. We therefore have removed percentages from the text and instead included those in all the tables to contain both numbers and percents.

6-12. These comments were taken into consideration, and modifications were made for each specific point. Thank you for noticing such details to help us improve this manuscript.